

## SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Christopher Yuen Examiner #: 79040 Date: 1-21-03  
 Art Unit: 1642 Phone Number 305-3586 Serial Number: 091544664  
 Mail Box and Bldg/Room Location: 8E18 Results Format Preferred (circle): PAPER DISK E-MAIL  
G8E12

**If more than one search is submitted, please prioritize searches in order of need.**

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Enhancement of peptide cellular uptake  
Inventors (please provide full names): Ziwei Huang, Jialun Wang, Zhijia Zhang, Simen Shan, Xiaoxiao Lu

Earliest Priority Filing Date: 4/7/1999

*\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

General Formula :  $(R-X)_n$ -peptide

**Point of Contact:**  
Susan Hanley  
Technical Info. Specialist  
CM1 6B05 Tel: 305-4053

Elected Formula:  $\text{CH}_2(\text{CH}_2)_8\text{CO}-\text{NH-peptide}$

Search a  
little diff  
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C-18

Point of Contact:  
Susan Hanley  
Technical Info. Specialist  
CM1 6B05 Tel: 305-4053

Please Forward to:  
Susan Hanley

to further  
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**STAFF USE ONLY**

Searcher: Hanley

Searcher Phone #: \_\_\_\_\_

Searcher Location: \_\_\_\_\_

Date Searcher Picked Up: 1/21

Date Completed: 1/21

Searcher Prep & Review Time: \_\_\_\_\_

Clerical Prep Time: \_\_\_\_\_

Online Time: \_\_\_\_\_

### Type of Search

NA Sequence (#) \_\_\_\_\_

AA Sequence (#) \_\_\_\_\_

Structure (#)           

### Bibliographic

**Litigation** \_\_\_\_\_

Fulltext

Patent Family \_\_\_\_\_

Other \_\_\_\_\_

**Vendors and cost where applicable**

STN

**Dialog**

### Questões

Dr.Lin

Lexis/

### Sequences

www

Other

# Inventor Search

YAEN 09/544,664

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(FILE 'HOME' ENTERED AT 13:56:41 ON 21 JAN 2003)

FILE 'HCAPLUS' ENTERED AT 13:57:11 ON 21 JAN 2003

L1 E HUANG Z/AU  
5772 S HUANG Z?/AU  
E WANG J/AU  
L2 28898 S WANG J?/AU  
L3 17848 S ZHANG Z?/AU  
L4 180 S SHAN S?/AU  
L5 4645 S LU X?/AU  
L6 56494 S L1-5  
L7 1583 S L6 AND ?PEPTID?  
L8 6 S L7 AND CELLULAR UPTAK?  
L9 4 S L8 NOT TAT/TI  
SELECT RN L9 1-4

4 citations

selecting Reg #15

from 4 cites in L9

FILE 'REGISTRY' ENTERED AT 14:01:18 ON 21 JAN 2003

L10 201 S E361-561  
L11 17 S E562-578  
L12 218 S L10-11  
L13 1 S L12 AND "DECAN"  
L14 131 S L12 NOT "UNCLAIMED"  
L15 66 S L14 NOT "CLONE"  
L16 61 S L15 AND PROTEIN/FS  
L17 5 S L15 NOT L16  
L18 0 S L16 AND NTE/FS  
L19 0 S L16 AND "CONJUGATE"

218 cpds

getting rid of peptides

non-peptide/proteins

none of the peptides/proteins say

FILE 'HCAPLUS' ENTERED AT 14:07:35 ON 21 JAN 2003

L20 2 S L9 AND L17

L21 4 S L9 OR L20

4 cites w/ 5 gds displayed

that they have any-  
thing special  
attached to them



=&gt; d ibib abs hitstr ind 1-4

L21 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2002:454125 HCAPLUS

TITLE: Structure-Activity Relationship of Reversibly  
Lipidized **Peptides**: Studies of Fatty  
Acid-Desmopressin ConjugatesAUTHOR(S): *8 1* Wang, Jeff; Wu, Daphne; Shen, Wei-ChiangCORPORATE SOURCE: *9 14v* School of Pharmacy, Department of Pharmaceutical  
Sciences, University of Southern California, Los  
Angeles, CA, 90033, USA

SOURCE: Pharmaceutical Research (2002), 19(5), 609-614

CODEN: PHREEB; ISSN: 0724-8741

PUBLISHER: Kluwer Academic/Plenum Publishers

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Purpose. To synthesize a series of reversible fatty acid-desmopressin (DDAVP) conjugates and to study their structure-activity relationship as anti-diuretic drugs. Methods. Seven fatty acid conjugates of DDAVP were prep'd. using various reversible lipidization reagents as described in our previous reports. All products were purified by acid pptn. and/or size-exclusion chromatog. Reversed-phase HPLC was used to evaluate their purity and lipophilicity. The anti-diuretic efficacy of these fatty acid conjugates was assessed in vasopressin-deficient Brattleboro rats. Four selected conjugates, i.e., DPA, DPH, DPD and DPP (acetic, hexanoic, decanoic, and palmitic acid conjugate, resp.), along with DDAVP itself were used in Caco-2 cell uptake studies and their degrdn. and the regeneration of active DDAVP were investigated using an in vitro liver slice metabolic system coupled with a HPLC assay. Results. All fatty acid-DDAVP conjugates were more lipophilic than DDAVP as exam'd. by HPLC analyses. When cysteine was used as the linker, the capacity index ( $k'$ , a measure of lipophilicity) of the conjugates was linearly correlated with the no. of carbons in the fatty acid chain. The anti-diuretic activity of the conjugates was correlated with the length of the fatty acid chain, with C10 as the minimal requirement for possessing the enhanced anti-diuretic activity. Among the seven fatty acid conjugates, palmitic acid conjugate was the most potent DDAVP deriv. Removal of carboxyl group from the cysteine linker completely abolished the enhancement of the activity. The extent of **cellular uptake** also pos. correlated with the lipophilicity of the conjugates. The metab. of DDAVP, DPH, DPD, and DPP by liver slices all followed first order kinetics with half-life of 0.30, 0.01, 0.06 and 3.44 h, resp. The degrdn. rates of DPH and DPD in the liver slice incubation were much faster than that of DDAVP and therefore an accumulation of regenerated DDAVP in the media was obs'd. In contrast, DPP was metabolized much slower than DDAVP and, consequently, no significant accumulation of regenerated DDAVP could be detected. Conclusion. Conjugation of DDAVP with fatty acids increased the lipophilicity and the anti-diuretic activity of this **peptide** drug. The anti-diuretic activity of lipidized DDAVP was dependent on the chain length of the fatty acid, as well as the structure of the linker in the conjugate. The preservation and enhancement of the in vivo anti-diuretic activity of the conjugates is most likely due to a combination of an improved pharmacokinetic behavior and a concurrent regeneration of active DDAVP in tissues.

CC 63 (Pharmaceuticals)

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:900673 HCAPLUS

DOCUMENT NUMBER: 134:67151  
 TITLE: Secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them  
 INVENTOR(S): Ashkenazi, Avi J.; Baker, Kevin P.; Botstein, David A.; Desnoyers, Luc; Eaton, Dan L.; Ferrara, Napoleone; Fong, Sherman; Gao, Wei-qiang; Gerber, Hanspeter; Gerritsen, Mary E.; Goddard, Audrey; Godowski, Paul J.; Gurney, Austin L.; Kljavin, Ivar J.; Mather, Jennie P.; Napier, Mary A.; Pan, James; Paoni, Nicholas F.; Roy, Margaret Ann; Stewart, Timothy A.; Tumas, Daniel; Watanabe, Colin K.; Williams, P. Mickey; Wood, William I.; **Zhang, Zemin**  
 PATENT ASSIGNEE(S): Genentech, Inc., USA; et al.  
 SOURCE: PCT Int. Appl., 244 pp. *8*  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 106  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000077037	A2	20001221	WO 2000-US14042	20000522
WO 2000077037	A3	20020228		
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WO 2000012708	A3	20011004		
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WO 2000015666	A3	20001123		
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AB The present invention is directed to novel **polypeptides** and to nucleic acid mols. encoding those **polypeptides**. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric **polypeptide** mols. comprising the **polypeptides** of the present invention fused to heterologous **polypeptide** sequences, antibodies which bind to the **polypeptides** of the present invention and to methods for producing the **polypeptides** of the present invention. Biol. activities are assigned to a no. of the gene products.

IT **127464-60-2**, Vascular endothelial growth factor  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (proteins inhibiting; secreted and transmembrane proteins of human  
 identified by gene discovery and cloning of cDNAs encoding them)

RN **127464-60-2** HCAPLUS

CN Vascular endothelial growth factor (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT 50-99-7, D-Glucose, biological studies

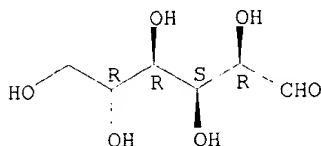
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(transport, protein stimulating; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

RN 50-99-7 HCAPLUS

CN D-Glucose (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



IC ICM C07K014-00

CC 3-2 (Biochemical Genetics)

Section cross-reference(s): 6, 13

ST secreted transmembrane protein human gene discovery cDNA cloning sequence

IT Cell proliferation

(T cell, protein stimulating; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT Recombination, genetic

(amplification, in tumors; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT Proteins, specific or class

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)

(apoptosis-regulating; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT Gene, animal

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(c-fos, proteins inducing expression of; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT Gene, animal

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(cDNA, for secreted and transmembrane proteins of human; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT Cell adhesion molecules

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(cloning of cDNA for; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT Intestine, neoplasm

(colon, genes amplified in; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT Pancreas

(duct, protein stimulating cell proliferation in; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT Blood vessel

- (endothelium, proteins inhibiting proliferation of; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
- IT cDNA sequences  
(for secreted and transmembrane proteins of human; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
- IT Genetic methods  
(gene discovery; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
- IT Lung, neoplasm  
(genes amplified in; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
- IT Biological transport  
(glucose, protein stimulating; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
- IT Heart, disease  
(hypertrophy, protein stimulating; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
- IT Kidney  
(mesangium, protein stimulating cell proliferation in; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
- IT Nerve  
(neuron, retinal, protein stimulating survival of; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
- IT Protein sequences  
(of secreted and transmembrane proteins of human; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
- IT Ear  
(organ of Corti, inner hair cell, utricular, protein stimulating proliferation of; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
- IT Capillary vessel  
(pericyte, protein inducing gene expression in; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
- IT Biological transport  
(permeation, vascular, proteins affecting; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
- IT Erythroblast  
(protein inducing Hb synthesis in; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
- IT Chondrocyte  
(protein inducing differentiation or proliferation of; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
- IT Fibroblast growth factor receptors  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(protein ligand for; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
- IT Cytokines  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(protein stimulating release of; secreted and transmembrane proteins of

- human identified by gene discovery and cloning of cDNAs encoding them)
- IT Cell proliferation  
(proteins stimulating cell or tissue-specific; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
- IT Fatty acids, biological studies  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(proteins stimulating **cellular uptake** of; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
- IT Neoplasm  
(proteins suppressing proliferation of; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
- IT Eye  
(retina, protein stimulating survival of neurons in; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
- IT Eye  
(rod, protein stimulating survival of; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
- IT Proteins, specific or class  
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
(secretory; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
- IT Proteins, specific or class  
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
(transmembrane; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
- IT Fibroblast growth factor receptors  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(type 4, protein ligand for; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
- IT Blood vessel  
(vascular leakage, protein stimulating; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
- IT Pancreatic islet of Langerhans  
(.beta.-cell, proteins affecting differentiation of; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
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210044-20-5, Glycoprotein p56-2 (human clone 2607571) 210479-05-3  
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221369-74-0 221649-74-7 221890-47-7 222538-58-1, Protein z219a (human precursor) 229620-14-8, Lungkine (Mus musculus lung)  
243123-56-0 260342-60-7 297277-25-9, Protein PRO4356 (human clone DNA86576-2595) 302874-51-7 307356-17-8, Protein PRO7170 (human clone DNA108722-2743) 312334-27-3, Protein PRO185 (human clone DNA28503)  
312334-34-2, Protein PRO9940 (human clone DNA92282) 314326-32-4  
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RL: BSU (Biological study, unclassified); PRP (Properties); BIOL

## (Biological study)

(amino acid sequence; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

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RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(nucleotide sequence; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT 127464-60-2, Vascular endothelial growth factor

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(proteins inhibiting; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT 50-99-7, D-Glucose, biological studies

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(transport, protein stimulating; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

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 314326-86-8 314326-87-9 314326-88-0 314326-89-1 314326-90-4  
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 314326-96-0 314326-97-1 314326-98-2 314326-99-3 314327-00-9  
 314327-01-0

RL: PRP (Properties)

(unclaimed nucleotide sequence; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

L21 ANSWER (3) OF 4 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:725483 HCAPLUS

DOCUMENT NUMBER: 133:276332

TITLE: Enhancement of peptide cellular uptake with peptide conjugates

INVENTOR(S): Huang, Ziwei; Wang, Jialun; Zhang, Zhijia; Shan, Simei; Lu, Zhixian

PATENT ASSIGNEE(S): Thomas Jefferson University, USA

SOURCE: (PCT) Int. Appl., 74 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

After 8 PD 4/7/99

→ Poss. pull to get know info

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000059526	A1	20001012	WO 2000-US9352	20000406
W: CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1210098	A1	20020605	EP 2000-923177	20000406
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				

PRIORITY APPLN. INFO.:  
 US 1999-128202P P 19990407  
 WO 2000-US9352 W 20000406

OTHER SOURCE(S): MARPAT 133:276332

AB The described invention claims **peptides** conjugated to lipophilic moieties to enhance **cellular uptake**. The **peptide** conjugates are useful in the modulation of apoptosis. N-decyl-COHN-KNLWAAQRYGRELRRMSDEFEGSFKGL caused apoptosis of Bcl-2-transfected HL-60 cells.

IT **50812-37-8D**, Glutathione S-transferase, fusion proteins with Bcl-2, **peptides** binding to  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
 (enhancement of **peptide cellular uptake**  
 using **peptide** conjugates with lipophilic compds.)

RN **50812-37-8** HCAPLUS

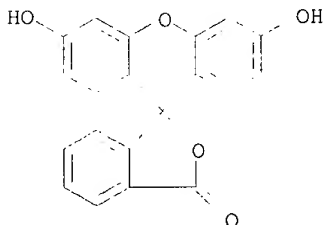
CN Transferase, glutathione S- (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT **2321-07-5DP**, Fluorescein, conjugates with **peptide**  
 RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)  
 (enhancement of **peptide cellular uptake**  
 using **peptide** conjugates with lipophilic compds.)

RN **2321-07-5** HCAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3',6'-dihydroxy- (9CI)  
 (CA INDEX NAME)

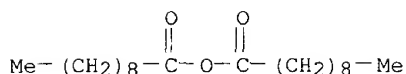


IT **2082-76-0**, Decanoic anhydride  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (enhancement of **peptide cellular uptake**  
 using **peptide** conjugates with lipophilic compds.)

RN **2082-76-0** HCAPLUS

CN Decanoic acid, anhydride (9CI) (CA INDEX NAME)





IC ICM A61K038-00  
 CC 1-6 (Pharmacology)  
 Section cross-reference(s): 9  
 ST **peptide cellular uptake** lipophilic conjugate; apoptosis decyl **peptide** Bcl2 protein binding  
 IT Phosphoproteins  
 RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)  
 (Bad (Bcl-2 protein-assocd. death promoter), **peptide** of BH3 domain of, Bcl-2 binding by; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)  
 IT Proteins, specific or class  
 RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)  
 (Bak, **peptide** of BH3 domain of, Bcl-2 binding by; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)  
 IT Proteins, specific or class  
 RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)  
 (Bax, **peptide** of BH3 domain of, Bcl-2 binding by; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)  
 IT Antitumor agents  
 (acute lymphocytic leukemia; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)  
 IT Leukemia  
 (acute lymphocytic; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)  
 IT Leukemia  
 (acute nonlymphocytic; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)  
 IT Proteins, specific or class  
 RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
 (bcl-2, **peptide** inhibiting or binding; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)  
 IT Antitumor agents  
 (chronic lymphocytic leukemia; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)  
 IT Leukemia  
 (chronic lymphocytic; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)  
 IT Intestine, neoplasm  
 Intestine, neoplasm  
 (colorectal, inhibitors; enhancement of **peptide**

- cellular uptake using peptide conjugates with lipophilic compds.)
- IT Antitumor agents  
Intestine, neoplasm  
(colorectal; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
- IT **Peptides**, biological studies  
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
(conjugates, with lipophilic compds.; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
- IT Lymphocyte  
(disease, self-reactive, induction of apoptosis in; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
- IT Antitumor agents  
Apoptosis  
Cell  
Drug delivery systems  
Lipophilicity  
Melanoma  
Stomach, neoplasm  
(enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
- IT **Peptides**, biological studies  
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
(enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
- IT Kidney, neoplasm  
Kidney, neoplasm  
Stomach, neoplasm  
Stomach, neoplasm  
Thyroid gland, neoplasm  
Thyroid gland, neoplasm  
(inhibitors; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
- IT Antitumor agents  
Antitumor agents  
(kidney; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
- IT Antitumor agents  
(lung non-small-cell carcinoma; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
- IT Antitumor agents  
(melanoma; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
- IT Prostate gland  
Prostate gland  
(neoplasm, inhibitors; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)

- IT Prostate gland  
(neoplasm; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
- IT Nerve, neoplasm  
Nerve, neoplasm  
(neuroblastoma, inhibitors; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
- IT Antitumor agents  
Nerve, neoplasm  
(neuroblastoma; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
- IT Lung, neoplasm  
Lung, neoplasm  
(non-small-cell carcinoma, inhibitors; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
- IT Lung, neoplasm  
(non-small-cell carcinoma; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
- IT Fusion proteins (chimeric proteins)  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(of GST and Bcl-2, **peptides** binding to; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
- IT Antitumor agents  
(prostate gland; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
- IT Antitumor agents  
Antitumor agents  
(stomach; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
- IT Antitumor agents  
Antitumor agents  
(thyroid; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
- IT Biological transport  
(uptake; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
- IT Infection  
(viral, apoptosis in cells with; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
- IT Amino acids, properties  
RL: PRP (Properties)  
(D-, **peptide** contg.; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
- IT 300349-95-5  
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)  
(as mutant of BakBH3 **peptide**, Bcl-2 binding by; enhancement

- of **peptide cellular uptake** using  
**peptide** conjugates with lipophilic compds.)
- IT 300349-99-9DP, biotinylated  
 RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)  
 (cellular uptake of; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
- IT 300349-92-2DP, conjugates with lipophilic compds., analogs 300349-96-6P 300349-97-7P  
 RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)  
 (enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
- IT 300349-39-7D, conjugates with lipophilic compds., analogs 300349-40-0D, conjugates with lipophilic compds., analogs 300349-41-1D, conjugates with lipophilic compds., analogs 300349-42-2D, conjugates with lipophilic compds., analogs 300349-43-3D, conjugates with lipophilic compds., analogs 300349-44-4D, conjugates with lipophilic compds., analogs 300349-45-5D, conjugates with lipophilic compds., analogs 300349-46-6D, conjugates with lipophilic compds., analogs 300349-47-7D, conjugates with lipophilic compds., analogs 300349-48-8D, conjugates with lipophilic compds., analogs 300349-49-9D, conjugates with lipophilic compds., analogs 300349-50-2D, conjugates with lipophilic compds., analogs 300349-51-3D, conjugates with lipophilic compds., analogs 300349-52-4D, conjugates with lipophilic compds., analogs 300349-53-5D, conjugates with lipophilic compds., analogs 300349-54-6D, conjugates with lipophilic compds., analogs 300349-55-7D, conjugates with lipophilic compds., analogs 300349-56-8D, conjugates with lipophilic compds., analogs 300349-57-9D, conjugates with lipophilic compds., analogs 300349-58-0D, conjugates with lipophilic compds., analogs 300349-59-1D, conjugates with lipophilic compds., analogs 300349-60-4D, conjugates with lipophilic compds., analogs 300349-61-5D, conjugates with lipophilic compds., analogs 300349-62-6D, conjugates with lipophilic compds., analogs 300349-63-7D, conjugates with lipophilic compds., analogs 300349-64-8D, conjugates with lipophilic compds., analogs 300349-65-9D, conjugates with lipophilic compds., analogs 300349-66-0D, conjugates with lipophilic compds., analogs 300349-67-1D, conjugates with lipophilic compds., analogs 300349-68-2D, conjugates with lipophilic compds., analogs 300349-69-3D, conjugates with lipophilic compds., analogs 300349-70-6D, conjugates with lipophilic compds., analogs 300349-71-7D, conjugates with lipophilic compds., analogs 300349-72-8D, conjugates with lipophilic compds., analogs 300349-73-9D, conjugates with lipophilic compds., analogs 300349-74-0D, conjugates with lipophilic compds., analogs 300349-75-1D, conjugates with lipophilic compds., analogs 300349-76-2D, conjugates with lipophilic compds., analogs 300349-77-3D, conjugates with lipophilic compds., analogs 300349-78-4D, conjugates with lipophilic compds., analogs 300349-79-5D, conjugates with lipophilic compds., analogs 300349-80-8D, conjugates with lipophilic compds., analogs 300349-81-9D, conjugates with lipophilic compds., analogs 300349-82-0D, conjugates with lipophilic compds., analogs 300349-83-1D, conjugates with lipophilic compds., analogs 300349-84-2D, conjugates with lipophilic compds., analogs 300349-85-3D, conjugates with lipophilic compds., analogs 300349-86-4D, conjugates with lipophilic compds., analogs 300349-87-5D, conjugates with lipophilic compds., analogs 300349-88-6D, conjugates with lipophilic compds., analogs 300349-89-7D,

conjugates with lipophilic compds., analogs 300349-90-0D, conjugates with lipophilic compds., analogs 300349-91-1D, conjugates with lipophilic compds., analogs 300349-93-3D, conjugates with lipophilic compds., analogs 300349-94-4D, conjugates with lipophilic compds., analogs

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (enhancement of **peptide cellular uptake**

using **peptide** conjugates with lipophilic compds.)

IT 50812-37-8D, Glutathione S-transferase, fusion proteins with Bcl-2, **peptides** binding to

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(enhancement of **peptide cellular uptake**

using **peptide** conjugates with lipophilic compds.)

IT 2321-07-5DP, Fluorescein, conjugates with **peptide**

RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)

(enhancement of **peptide cellular uptake**

using **peptide** conjugates with lipophilic compds.)

IT 300349-98-8DP, biotinylated, resin-bound

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(enhancement of **peptide cellular uptake**

using **peptide** conjugates with lipophilic compds.)

IT 2082-76-0, Decanoic anhydride

RL: RCT (Reactant); RACT (Reactant or reagent)

(enhancement of **peptide cellular uptake**

using **peptide** conjugates with lipophilic compds.)

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1998:711036 HCAPLUS

DOCUMENT NUMBER: 130:100406

TITLE: Reversible lipidization for the delivery of **peptide** and protein drugs

*Not Inv.*

AUTHOR(S): Shen, Wei-Chiang; Wang, Jeff; Shen, Daisy

CORPORATE SOURCE: Department of Pharmaceutical Sciences, University of Southern California School of Pharmacy, Los Angeles, CA, 90033, USA

SOURCE: Alfred Benzon Symposium (1998), 43(Peptide and Protein Drug Delivery), 397-410

CODEN: ABSYB2; ISSN: 0105-3639

PUBLISHER: Munksgaard International Publishers Ltd.

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review with 16 refs. Binding of Bowman-Birk protease inhibitor (BBI) and Pal-BBI to serum proteins, **cellular uptake** and processing of BBI and Pal-BBI in cultured caco-2 cells, pharmacokinetics and biodistribution of Pal-BBI, recovery of biol. activity of BBI from Pal-BBI and the site of Pal-BBI redn. are discussed.

CC 63-0 (Pharmaceuticals)

ST review lipidization **peptide** protein drug delivery

IT Drug delivery systems

Lipophilicity

(reversible lipidization for the delivery of **peptide** and protein drugs)

IT Lipids, biological studies  
    **Peptides**, biological studies  
    Proteins, general, biological studies  
    RL: BPR (Biological process); BSU (Biological study, unclassified); THU  
    (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
    (reversible lipidization for the delivery of **peptide** and  
    protein drugs)  
IT 37239-97-7  
    RL: BPR (Biological process); BSU (Biological study, unclassified); THU  
    (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
    (reversible lipidization for the delivery of **peptide** and  
    protein drugs)  
REFERENCE COUNT: 16      THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS  
                             RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT